VOLUME CONTENTS

VOLUME 16, 1991

NUMBER 1

V. Arul	1	Effect of temperature on yolk utilization of *Channa striatus*
J. A. C. Lee, P. S. James, M. W. Smith and A. R. Cossins	7	Amino acid transport in the intestinal mucosa of temperature-acclimated carp
A. Haim, P. A. Racey, J. R. Speakman, G. T. H. Ellison and J. D. Skinner	13	Seasonal acclimatization and thermoregulation in the pouched mouse *Saccostomus campestris*
M. Caputa, A. Kamari and M. Wachulec	19	Selective brain cooling in rats resting in heat and during exercise
Colleen T. Downs and M. R. Perrin	25	Physiological adjustments to low temperatures of four *Gerbillurus* species
André Buatois and Jean-Paul Croze	31	Effect of variability of breeding temperature on the thermal responses of a poikilothermic insect, the female cockroach *Blaberus craniifer*
Akihiro Kuroshima and Tomie Ohno	37	Cold- and noradrenaline-induced changes in ganglioside GM_3 levels of rat brown adipose tissue
R. C. Sponsler and A. G. Appel	41	Temperature tolerances of the Formosan and eastern subterranean termites (Isoptera: Rhinotermitidae)
Folke K. Larsson	45	Some take it cool, some like it hot—a comparative study of male mate searching tactics in two species of Hymenoptera (Colletidae and Sphecidae)
R. J. Hurst, P. D. Watts and N. A. Oritsland	53	Metabolic compensation in oil-exposed polar bears
P. D. Watts, B. A. Draper and J. Henrico	57	Preferential use of warm water habitat by adult beluga whales
Jack R. Layne Jr and Richard E. Lee Jr	61	The importance of body tissue composition to calorimetric assessments of ice content in whole animals
Kyllikki Korhonen	65	Heat flux density on egg surface and incubation rhythm of willow grouse (*Lagopus l. lagopus* L.)

NUMBER 2

M. Harri, J. Mononen, K. Haapanen and H. Korhonen	71	Postnatal changes in hypothermic response in farmborn blue foxes and raccoon dogs
R. P. Francesconi, R. W. Hubbard, N. M. Leva, R. C. Anderson and L. Gowenlock	77	Potassium deficiency in rats: effects on acute thermal tolerance
Rui Wang, Edward Karpinski and Peter K. T. Pang	83	Temperature dependence of L-type calcium channel currents in isolated smooth muscle cells from the rat tail artery
A. Talo and R. Tirri	89	Temperature acclimation of the perch (*Perca fluviatilis* L.): changes in duration of cardiac action potential

E. Jayakumar and S. Mathavan 93 Effect of temperature on the growth and bioenergetics of *Laccotrephes griseus* (Hemiptera: Nepidae)

Shouichi Ohga, Kohji Ueda, Yasunobu Yoshikai, Yasuyuki Takeda, Kenji Hiromatsu and Kikuo Nomoto 103 Kinetics of fever and its related cytokines in mice after intraperitoneal infection with *Listeria monocytogenes*

Akihiro Kuroshima, Takehiro Yahata and Tomie Ohno 109 Comparison of *in vitro* thermogenesis of brown adipose tissue in cold-acclimated rats and guinea pigs

H. Mikołajczyk, Maria Kamedula, Ingeburg Ruppe and S. Eggert 115 Thermal effects in rats exposed to heat at 40°C or to electromagnetic fields

George S. Bakken 121 Wind speed dependence of the overall thermal conductance of fur and feather insulation

Book Review 127

Announcement I

NUMBER 3

T. A. Zari 129 The influence of body mass and temperature on the standard metabolic rate of the herbivorous desert lizard, *Uromastyx microlepis*

V. Kalarani, D. C. Reddy, B. P. Naidu and Ronald W. Davies 135 Time-course of thermal acclimation in the tropical scorpion, *Heterometrus fulvipes*

K. W. Chiu and Y. C. Lee 141 Temperature and cardiac adrenoceptors in ectotherms

A. Haim and J. D. Skinner 145 A comparative study of metabolic rates and thermoregulation of two African antelopes, the steenbok *Raphicerus campestris* and the blue duiker *Cephalophus monticola*

A. J. McArthur 149 Metabolism of homeotherms in the cold and estimation of thermal insulation

Wendy Goodfriend, David Ward and Aziz Subach 157 Standard operative temperatures of two desert rodents, *Gerbillus allenbyi* and *Gerbillus pyramidum*: the effects of morphology, microhabitat and environmental factors

Torbjørn Severinsen and Nils Are Øritsland 167 Endotoxin induced prolonged fever in rats

Craig E. Franklin, William Davison and Peter W. Carey 173 The stress response of an Antarctic teleost to an acute increase in temperature

Donal C. Skinner 179 Effect of intraperitoneal melatonin injections on thermoregulation in the Transvaal girdled lizard, *Cordylus vittifer*

NUMBER 4

Review

Barry G. Lovegrove, Gerhard Heldmaier and Thomas Ruf 185 Perspectives of endothermy revisited: the endothermic temperature range

General Papers

Barry G. Lovegrove, Gerhard Heldmaier and Michael Knight 199 Seasonal and circadian energetic patterns in an arboreal rodent, *Thallomys paedulcus*, and a burrow-dwelling rodent, *Aethomys namaquensis*, from the Kalahari Desert

Ramaballav Roy, Asit Baran Das and Tibor Farkas 211 Role of environmental thermal fluctuation in seasonal variation of fatty acid composition of total lipid in fatbody of the cockroach, *Periplaneta americana* (Linn.)

Attilio Arillo and Federico Melodia 217 A temperature-induced mitochondrial cycle in the earthworm *Eisenia foetida* (Savigny)

Walter Arnold, Gerhard Heldmaier, Sylvia Ortmann, Hermann Pohl, Thomas Ruf and Stephan Steinlechner 223 Ambient temperatures in hibernacula and their energetic consequences for alpine marmots (*Marmota marmota*)

Rochelle Buffenstein and Shlomo Yahav 227 Is the naked mole-rat *Heterocephalus glaber* an endothermic yet poikilothermic mammal?

C. Souty-Grosset, A. Chentoufi, P. Juchault and J.-P. Mocquard 233 Combined effects of thermoperiod and photoperiod on the reproduction of a terrestrial isopod *Armadillidium vulgare* (Latreille): geographical variability

Uri Meiri, Mara Shochina and Michal Horowitz 241 Heat acclimated hypohydrated rats: age dependent vasomotor and plasma volume responses to heat stress

NUMBER 5

J. Attias, D. S. Seidman, A. Laor, J. Alster and Y. Epstein 249 The effect of moderate heat stress on auditory brain stem evoked response in man

Daniel Afik, David Ward and Yehoshua Shkedy 255 A test of the self-incubation hypothesis for desert birds that build a rampart of stones in front of their nests

Sunil C. Kaul 261 Hyperthermia induced ultrastructural changes in *Stylonychia mytilus* cells

Osamu Shido, Yoriko Yoneda and Tetsuo Nagasaka 267 Shifts in the hypothalamic temperature of rats acclimated to direct internal heat load with different schedules

Barbara H. Dainton 273 Heat tolerance and thyroid activity in developing tadpoles and juvenile adults of *Xenopus laevis* (Daudin)

Colleen T. Downs, Jane M. Bowland, A. E. Bowland and M. R. Perrin 277 Thermal parameters of serval *Felis serval* (Felidae) and blackbacked jackal *Canis mesomelas* (Canidae)

Chris A. Martin, Dewayne L. Ingram and Matthew A. Jenks 281 Response of southern magnolia to supraoptimal root-zone temperatures

M. J. M. Nijland and M. A. Baker 287 Effects of sweating on peripheral temperatures in goats

Glenn E. Walsberg 291 Thermal effects of seasonal coat change in three subarctic mammals

Elizabeth Sherman, Lynda Baldwin, Gerardo Fernandez and Erik Deurell 297 Fever and thermal tolerance in the toad *Bufo marinus*

R. L. Phelps and R. E. Gatten Jr 303 Thermal insensitivity of oxygen pulse in spontaneously-active juvenile alligators

Lynnette M. Sievert 309 Thermoregulatory behaviour in the toads *Bufo marinus* and *Bufo cognatus*

Announcement I

NUMBER 6

George S. Bakken	313	Time-resolved respirometry: equations for the simultaneous measurement of all respiratory gases and the calibration of oxygen consumption using variable inert gas flow rates
P. Mbaabu Mathiu, William R. Dawson and G. Causey Whittow	317	Development of thermoregulation in Hawaiian brown noddies (*Anous stolidus pileatus*)
V. Kalarani, D. C. Reddy, B. P. Naidu and Ronald W. Davies	327	Acclimatory responses in enzymatic activity and metabolite concentrations in the tropical scorpion *Heterometrus fulvipes*
E. Briese, Han Hui-Wan and M. A. Parada	333	Stress hyperthermia in mice
T. Pages, J. F. Fuster and L. Palacios	337	Thermal responses of the fresh water turtle *Mauremys caspica* to step-function changes in the ambient temperature
Shlomo Yahav and Rochelle Buffenstein	345	The effect of temperature on caecal fermentation processes in a poikilothermic mammal, *Heterocephalus glaber*
Jørgen Schou Christiansen, Helge Kreützer Johnsen and Malcolm Jobling	351	The combined effects of ambient temperature and enforced sustained swimming activity on body temperatures of Arctic charr (*Salvelinus alpinus* L.).
M. Caputa and A. Kamari	357	Effect of warm rearing on temperature regulation in resting and exercising rats
M. Caputa and A. Kamari	363	Exercise performance of normothermic and hyperthermic rats: effect of warm rearing
Tobias J. Carter and Peter J. Fraser	367	Effects of temperature on tilt evoked swimming in the crabs *Carcinus* and *Macropipus*
Short Communication		
Yong J. Lee, William C. Dewey and Laurence J. Marton	377	Mechanisms of heat protection by cycloheximide or puromycin: involvement of polyamines?
Errata	381	
Announcement	I	